

1 ABSTRACT OF THE DISCLOSURE

2 The invention encompasses methods for cleaning surfaces of wafers
3 or other semiconductor articles. Oxidizing is performed using an oxidation
4 solution which is wetted onto the surface. The oxidation solution can
5 include one or more of: water, ozone, hydrogen chloride, sulfuric acid,
6 or hydrogen peroxide. A rinsing step removes the oxidation solution and
7 inhibits further activity. The rinsed surface is thereafter preferably
8 subjected to a drying step. The surface is exposed to an oxide removal
9 vapor to remove semiconductor oxide therefrom. The oxide removal vapor
10 can include one or more of: acids, such as a hydrogen halide, for
11 example hydrogen fluoride or hydrogen chloride; water; isopropyl alcohol;
12 or ozone. The processes can use centrifugal processing and spraying
13 actions.

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